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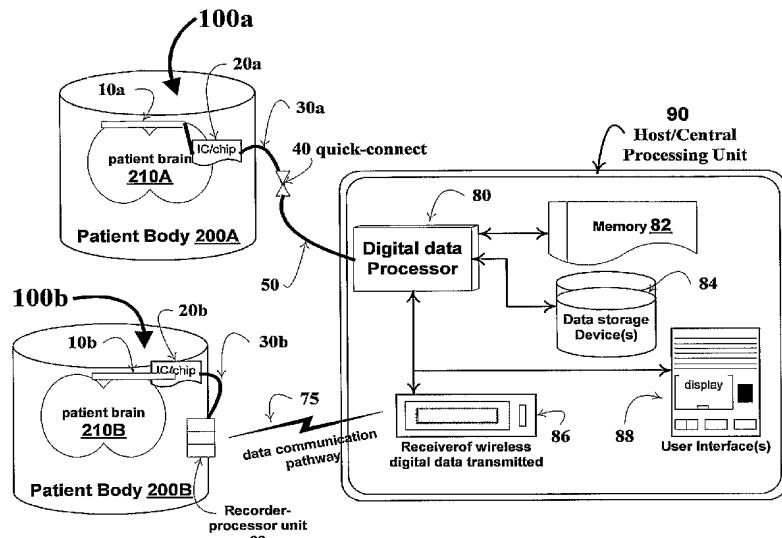
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(54) Title: ACTIVEINVASIVE EEG DEVICE AND TECHNIQUE



(57) **Abstract:** An electrode device for taking a plurality of EEG measurements, and an associated method of taking EEG measurements, whereby a plurality of electrode contact-points configured atop a support member are in electrical communication with, and in relative proximity to, an integrated circuit comprising converter circuitry adapted for converting analog EEG signals measured, having originated from within a patient, into digital signals prior to transmission thereof to a processing unit. The integrated circuit/circuitry (IC) may be supported by the support member or by a lead assembly having wiring for the digital signal transmission. The support member may have a plurality of layers and be generally flexible; as fabricated of any of a number of flexible, generally insulative biocompatible materials to which circuitry may be etched or deposited, exhibiting sufficient structural integrity to decrease likelihood of degradation during surgery or once implanted.

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